

REMARKS

Reconsideration and allowance of the above-identified application are respectfully requested. Claims 19-30 remain pending, wherein it is proposed to amend claims 27 and 30. Entry of these amendments is appropriate in the period after a final rejection because these amendments are consistent with the interpretation of the claims provided in the final Office Action, and thus these amendments do not raise new issues. Additionally, these amendments reduce issues for appeal by overcoming the claim objections and the indefiniteness rejection.

Claim 27 is objected to for a minor informality. The claim has been amended in the manner suggested in the Office Action, and accordingly withdrawal of this rejection is respectfully requested.

Claims 27 and 30 are rejected for indefiniteness under 35 U.S.C. § 112, second paragraph. This ground of rejection is respectfully traversed.

The rejection of claim 27 is based on the term “the connections” in line 9 lacking antecedent basis. It is respectfully submitted that when this term is read in context of the claim, it does not render the claim indefinite.

It should be recognized that “the failure to provide explicit antecedent basis for terms does not always render a claim indefinite.”¹ Indeed, the M.P.E.P. specifically cites *Ex parte Porter*, 25 USPQ2d 1144, 1145 (Bd. Pat. App. & Inter. 1992), which held that “controlled stream of fluid” provided antecedent basis for “the controlled fluid”.

¹ M.P.E.P. § 2173.05(e).

It is respectfully submitted that the situation in the present case is similar to that of *Ex parte Porter*, and thus the failure of explicit antecedent basis does not render claim 27 indefinite. The two claim elements relevant to the discussion are reproduced below:

providing a ***router connected by an interface to ports*** for applications running on terminals on the LAN²;

when the interface is unused for ***the connections to the ports***, the monitor sends a message to the connection controller to break the connection between the router and the another network³.

Thus, the claim is clear that “the connections to the ports” near the end of the claim references the connections between the router and the interface to the ports recited earlier in the claim. Accordingly, it is respectfully submitted that one skilled in the art would have read the claim in this manner and would not have found the claim to be indefinite.

Regarding the rejection of claim 30, this claim is amended to recite “the first connection terminates”, which has antecedent basis in the “first connection” recited in the first two lines of the claim.

For at least those reasons set forth above, it is respectfully requested that the rejection of claims 27 and 30 for indefiniteness be withdrawn.

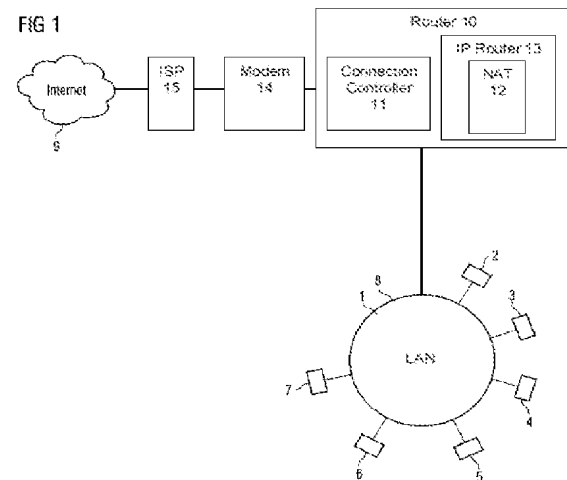
Claims 19-30 are rejected for obviousness under 35 U.S.C. § 103(a) in view of the combination of U.S. Patent No. 7,287,082 to O’Toole, Jr. (“O’Toole”) and U.S. Patent Application Publication No. 2002/0002621 to Zhang et al. (“Zhang”). This ground of rejection is respectfully traversed.

² Emphasis added.

³ This element reflects the proposed amendment submitted with this reply and has the emphasis added.

Prior to addressing this ground of rejection in detail, a brief summary of the disclosed invention is provided to highlight advantageous characteristics thereof. Conventional systems provided a router coupled between a LAN and the internet. The router uses a network address translation (NAT) technique to map traffic received using the router's global IP address to local IP address. Conventional systems encounter the so-called "short-hold" problem in which unwanted packets are received for devices on the LAN, which can occur, for example, when a user closes a browsing application. Thus, conventional systems continue to maintain the connection between the router and the internet even when the terminal to which the packets are addressed does not respond to the unwanted packets. This increases connection costs and consumes global IP addresses because the connection to the internet is maintained even when the devices on the LAN do not require the connection to the internet.

The present invention addresses the "short-hold" problem of conventional systems by monitoring the use of the local ports to the LAN and releasing the connection to the internet when the interfaces are not used. Specifically, referring to FIG. 1 of the present application (reproduced on the right), IP router 13 monitors the usage of the ports to the LAN and when all of the ports are determined to be unused, the IP router 13 sends a message to connection controller 11 to clear the connection to the internet. In the example of FIG. 1, the cleared connection would be the connection between router 10 and internet 9, via modem 14 and ISP 15.



Turning now to the claims, the combination of O'Toole and Zhang does not render claim 27 obvious because the combination does not disclose or suggest that when the interface between the router and the ports to the applications running on the terminals is unused, a message is sent to “break the connection *between the router and the another network.*”⁴ Instead of dropping the connection between the router and the internet, O'Toole discloses dropping individual connections between the load balancer and servers. Specifically, referring to FIGURE 1 of O'Toole (reproduced below), *individual connections 140* between load balancer 125 and servers 130-1...130-3 *are dropped when the individual connections are idle.* O'Toole does not disclose that the connection between router 115 and internet 110 is dropped when the connections 140 are idle.

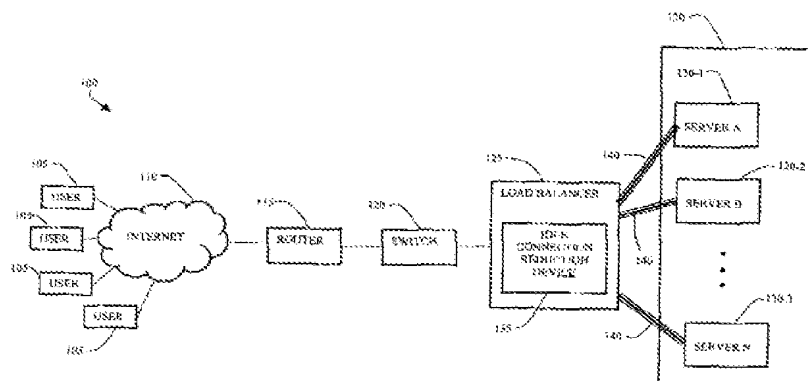


FIGURE 1

In contrast to O'Toole's disclosure of dropping connection between load balancer 125 and servers 130-1...130-3, Applicant's claim 27 breaks “the connection *between the router and the another network.*”⁵

⁴ Emphasis added.

⁵ Emphasis added.

Similarly, claim 29 determines “whether to release the ***first connection to the another network***”⁶ and claim 19 determines “whether to release a ***connection to another network***”⁷. Accordingly, O’Toole’s disclosure of dropping a connection between load balancer 125 and servers 130-1...130-3 does not disclose or suggest releasing the first connection of claim 29 or releasing the connection to another network of claim 19 for similar reasons to those discussed above with regard to claim 27.

Zhang is cited for the disclosure of a network address translator (NAT), but does not remedy the above-identified deficiencies of O’Toole with respect to claims 19, 27 and 29.

Dependent claim 20 recites that “releasing the connection ***terminates the connection for all of the plurality of terminals*** to the another network”⁸; dependent claim 28 recites that “when the connection controller breaks the connection between the router and the another network the connection controller ***terminates the connection for all of the applications*** running on the terminals on the LAN to the another network”⁹; and dependent claim 30 recites that “releasing the first connection terminates the first connection ***for all of the plurality of terminals*** to the another network.”¹⁰ O’Toole’s disclosure of releasing the individual connections between load balancer 125 and servers 130-1...130-3 does not disclose or suggest releasing all of the connections required by

⁶ Emphasis added.

⁷ Emphasis added.

⁸ Emphasis added.

⁹ Emphasis added.

¹⁰ Emphasis added.

dependent claims 20, 28 and 30. Instead, it would only release a single, individual connection.

Claims 21-27 are patentably distinguishable over the combination of O'Toole and Zhang at least by virtue of their dependency from claim 20.

For at least those reason set forth above, the rejection of claims 19-30 for obviousness should be withdrawn.

If there are any questions regarding this response or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323, Docket No. 105247.57619US.

Respectfully submitted,

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/Stephen W. Palan, Reg. # 43,420/
Stephen W. Palan
Registration No. 43,420

CROWELL & MORING LLP
Intellectual Property Group
P.O. Box 14300
Washington, DC 20044-4300
Telephone No.: (202) 624-2500
Facsimile No.: (202) 628-8844
SWP:crr
11220496